

REMARKS

Favorable reconsideration and allowance of the present application in view of the foregoing amendments and the following remarks are respectfully requested.

Claims 1-16, 19, 21-28, and 30-47 remain in this application. Independent claims 1, 23, 33, and 43 are currently being amended, dependent claims 17-18 are currently being cancelled, and dependent claims 20 and 29 were previously cancelled. Independent claim 1, for instance, is directed to a method for forming a tissue product having a relatively low level of lint and slough, wherein a liquid furnish of cellulosic fibers is formed into a multi-layered wet web and wherein a debonder and at least one latex are applied to the furnish, the wet web, or combinations thereof. The debonder includes an imidazoline quaternary compound or an ester-functional quaternary ammonium compound. The latex has a glass transition temperature of less than about 30°C and is applied in an amount less than about 60 pounds per ton of the dry weight of the cellulosic fibers. After application of the debonder and the latex to the furnish, the wet web, or combinations thereof, the wet web is dried so that at least one outer layer of the dried web contains the latex-treated cellulosic fibers. Additionally, greater than about 60% of the latex is retained on the cellulosic fibers.

Independent claims 1, 23, 33, and 43, were rejected under 35 U.S.C. § 102(b) as being anticipated by or, in the alternative, under 35 U.S.C. § 103(a) as being obvious over either U.S. Patent No. 5,427,696 or 5,510,000 to Phan, et al. and U.S. Patent No. 3,844,880 to Meisel, et al., optionally with U.S. Patent No. 5,437,766 to Van Phan, et al. Phan, et al. '696 is directed to a biodegradable chemical softening composition for treating fibrous cellulose materials. The biodegradable softening composition of Phan, et al. '696 must contain a mixture of (1) a quaternized ester-amine compound and (2) a polyhydroxy compound selected from the group consisting of glycerol, and polyethylene glycols and polypropylene glycols having a weight average molecular weight from about 200 to 4000. Phan, et al. '696 does not disclose or suggest a method of forming a tissue product having a relatively low level of lint and slough, nor does Phan, et al. '696 disclose or suggest the addition, to a furnish of cellulosic fibers, a wet web, or combinations thereof, of (1) a debonder, wherein the debonder includes an imidazoline

quaternary compound or an ester-functional quaternary ammonium compound, and (2) a latex, which has a glass transition temperature less than about 30°C, in an amount less than about 60 pounds per ton of the dry weight of the cellulosic fibers, such that greater than about 60% of the latex is retained on the cellulosic fibers and such that at least one outer layer of a dried web contains the latex-treated cellulosic fibers.

Phan, et al. '000 is directed to paper products containing a vegetable oil-based chemical softening composition for use in papermaking. Phan, et al. '000 does not disclose or suggest a method of forming a tissue product having a relatively low level of lint and slough, nor does Phan, et al. '000 disclose or suggest the addition, to a furnish of cellulosic fibers, a wet web, or combinations thereof, of (1) a debonder, wherein the debonder includes an imidazoline quaternary compound or an ester-functional quaternary ammonium compound, and (2) a latex, which has a glass transition temperature less than about 30°C, in an amount less than about 60 pounds per ton of the dry weight of the cellulosic fibers, such that greater than about 60% of the latex is retained on the cellulosic fibers and such that at least one outer layer of a dried web contains the latex-treated cellulosic fibers.

Further, Meisel, et al. is generally directed to a method of producing cellulosic sheet materials from a cellulosic fibrous slurry to which there is added sequentially a cationic surface active agent and an anionic or nonionic resin, which resin further requires a deposition aid. Meisel et al. does not disclose or suggest the formation of a multi-layered wet web, as required in all of claims 1, 23, 33, and 43. Further, Meisel, et al. does not disclose or suggest a method of forming a tissue product having a relatively low level of lint and slough, nor does Meisel, et al. disclose or suggest the addition, to a furnish of cellulosic fibers, a wet web, or combinations thereof, of (1) a debonder, wherein the debonder includes an imidazoline quaternary compound or an ester-functional quaternary ammonium compound, and (2) a latex, which has a glass transition temperature less than about 30°C, in an amount less than about 60 pounds per ton of the dry weight of the cellulosic fibers, such that greater than about 60% of the latex is retained on the cellulosic fibers and such that at least one outer layer of a dried web contains the latex-treated cellulosic fibers.

Example 6 in Applicants' specification illustrates that using a debonder that includes either an imidazoline quaternary compound or an ester-functional quaternary ammonium compound according to the present claims leads to higher latex retention percentages on fibers used to make Applicants' claimed tissue product. And at pages 21-22, Applicants' specification points out that controlling the latex retention percentages to make such percentages higher leads to better inhibition of the production of slough from the web. Thus, retaining the latex on the cellulosic fibers leads to the latex forming a flexible bond with the cellulosic fibers such that a resulting web is flexible and strong, while also producing low amounts of lint and slough. (Appl. at page 4).

In short, Applicants respectfully submit that the Phan, et al. '696 and '000 references, alone or in conjunction with Meisel, et al., do not disclose or suggest the synergistic effect of the claimed methods of independent claims 1 and 23 or the claimed tissue products of independent claims 33 and 43, wherein the combination of applying (1) a debonder, where the debonder includes an imidazoline quaternary compound or an ester-functional quaternary ammonium compound and (2) at least one very specific latex (a latex having a glass transition temperature of less than about 30°C) to a liquid furnish of cellulosic fibers, a wet web made from such cellulosic fibers, or combinations thereof, results in tissue products having a relatively low level of lint and slough and tissue products wherein greater than 60% of the latex applied to the furnish or web is retained on the cellulosic fibers of the web.

Various dependent claims were rejected under either Section 102(b) or 103(a) as being unpatentable over Phan, et al. '696 or '000 and Meisel, et al., optionally with Van Phan, et al. Additionally, dependent claims 4, 25 and 37 were rejected under 35 U.S.C. § 103(a) as being unpatentable over Phan, et al. '696 or '000 and Meisel, et al., optionally with Van Phan, et al., and further in view of U.S. Patent No. 6,129,815 to Larson, et al. or U.S. Patent No. 5,851,352 to Vinson, et al. Applicants respectfully submit, however, that at least for the reasons indicated above relating to corresponding independent claims 1, 23, 33, and 43, the dependent claims patentably define over the references cited in the Office Action. However, Applicants also note that the

patentability of the dependent claims does not necessarily hinge on the patentability of independent claims 1, 23, 33, and 43. In particular, it is believed that some or all of these dependent claims may possess features that are independently patentable, regardless of the patentability of claims 1, 23, 33, and 43.

Applicants respectfully submit that the present claims patentably define over all of the prior art of record for at least the reasons set forth above. As such, it is believed that the present application is in complete condition for allowance and favorable action, therefore, is respectfully requested. Should any issues remain after consideration of this Amendment, Examiner Chin is invited and encouraged to telephone the undersigned. Otherwise, Applicants respectfully request that a timely Notice of Allowance be issued in this case.

Please charge any additional fees required by this Amendment to Deposit Account No. 04-1403.

Respectfully requested,

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